

islands, including marsh St. John's-wort (*Hypericum mutilum*), three-way sedge (*Dulichium arunidinacea*), seepage-rue (*Thalictrum clavatum*), sneezeweed (*Helenium autumnale*), and jewelweed (*Impatiens capensis*). Several rare and Watch List plant characteristic of Rocky Bars grow here such as brook-foam, American pennywort (*Hydrocotyle americana*), and bog chickweed (*Stellaria alsine*). This community continues sporadically downstream along the North Fork French Broad with similar species composition.

Acidic Cove Forest dominated by mature eastern hemlock (*Tsuga canadensis*), white pine (*Pinus strobus*), and tulip poplar (*Liriodendron tulipifera*) occurs on the slopes above the river. Dense evergreen heath species form the shrub layer. A moderate-size population of French Broad heartleaf (*Hexastylis rhombiformis*) occurs in this community and elsewhere in similar settings along the North Fork French Broad River.

MANAGEMENT AND PROTECTION: Portions of the west side of the North Fork are owned and managed by U.S. Forest Service, but the actual falls and French Broad heartleaf population are on private land. Placement of a conservation easement on the falls, the river channel, and the adjacent slopes and inclusion in the Natural Heritage Area Registry is recommended in order to protect the natural communities and rare plants. Efforts to improve water quality upstream in the Balsam Grove community will benefit the ecological health of the North Fork and this small Spray Cliff community. Treatment of eastern hemlocks here is recommended to prevent loss of canopy cover in riparian areas and changes to stream habitat. Additional surveys of similar habitat along the North Fork French Broad River and targeted surveys for hellbenders (*Cryptobranchus alleganiensis*) are highly recommended.

NATURAL COMMUNITIES: Spray Cliff, Rocky Bar and Shore, and Acidic Cove Forest.

RARE PLANTS: French Broad heartleaf (*Hexastylis rhombiformis*) and bog chickweed (*Stellaria alsine*); Watch List: brook-foam (*Boykinia aconitifolia*), American pennywort (*Hydrocotyle americana*), and Appalachian shoestring fern (*Vittaria appalachiana*).

RARE ANIMALS: None observed.

REFERENCES:

Gaddy, L.L. 1986. A new *Hexastylis* (Aristolochiaceae) from Transylvania County, North Carolina. *Brittonia* 38(1): 82-85.

Schwartzman, E. 2007. Site Survey Report: Bird Rock Falls. N.C. Natural Heritage Program, Office of Natural Resource Planning and Conservation, DENR, Raleigh, N.C.

Wickland, D.E. and J.H. Horton. 1978. Botanical evaluation of the French Broad River Corridor. Tennessee Valley Authority.